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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,031	04/10/2000	Christopher Keith	IVEN125461	3070
52531 7590 01/16/2007 CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347			EXAMINER GRAHAM, CLEMENT B	
			ART UNIT	PAPER NUMBER
			3692	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/546,031

Applicant(s)

KEITH, CHRISTOPHER

Examiner

Clement B. Graham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/27/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-22 remained pending and claims 23-26 has been added.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

3. Claims 1-26, are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiser et al, U.S Patent 6, 505, 174 in view Buist U.S Patent 6, 408, 282).

As per claims 1-3, 6, 17, 19, 23-24 Keiser discloses a method of providing a published price for a security comprising: notifying (i. e, displays instruments") a set of computers (i. e, plurality of client computers") of a proposed price for buying or selling the security, and a computer. (Note abstract and see column 2 lines 57-67 and column 3 lines 1-28).

Keiser fail to explicitly teach determining whether any of the first computer program entities has offered an improved price, higher than the proposed price for buying or lower than the proposed price for selling and providing the improved price as the published price, wherein the notifying, determining and providing and are performed by a program second computer program entity executing on a computer.

However Buist discloses in FIG. 42 is a negotiations screen. Users of the system can undertake direct, real-time on-line negotiations with other traders on the system. The purpose of the negotiations system is to permit traders to attempt to better the price of buying or selling stock as compared against the best bid and offer shown in the order book display. The negotiations screen has three main components: the "Traders at a price level" screen 4200, the "Out-going negotiations" screen 4205, and the "In-coming negotiations" screen 4210. The traders listed in the screen 4200 are called up by double-clicking on a quantity away from the best bid and offer shown in the order book display (see FIG. 25). The price corresponding to the quantity double-clicked in the order book display is the price listed in the "Price" column 4260 of the negotiations

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display traders screen 4200. In the example shown in FIG. 42, that price is 52.5. The numbers 4215 in parentheses adjacent to the best price amounts are the numbers entered by the traders designating the price above/below their limit price at which they are willing to negotiate. In the example shown, Fred D. is willing to negotiate within  $3/16$  (0.1875) of 52.5. Analogously, the numbers in the Qty column represent the number of shares each seller is offering for sale, and the numbers 4220 in parentheses adjacent to the share numbers have been entered by the sellers to designate the variation from the stated number of shares with respect to which they are willing to negotiate. Thus Fred D. is offering to sell 200 shares, but he might be willing to sell between 160 and 240 shares. The numbers in the "Time" column have been entered by the sellers, and designate their preferred negotiation times. The numbers 4225 in parentheses designate the lower time limit each trader will accept. The numbers in the "Activity" column 4230 represent the trader's level of trading activity in the selected stock. The numbers are in the set  $\{0, 1, 2, 3, 4\}$ , where 0 means that the trader has never negotiated a trade in that stock and 4 means that the trader is among the most active traders in that stock. The P/L-BBO column 4284 displays the user's loss or gain as compared to the current best bid or ask for the stock being negotiated. The price buttons 4240, the size buttons 4245, and the time buttons 4250 are located near the bottom of the negotiations display. Default incremental changes are set in the "Set defaults" screen (see FIG. 41) (the "Set defaults" screen is called up by clicking the "Set defaults" button 4235). Incorporated in the negotiation interface is a "Speed Function": if the user holds down the Shift key while selecting a trader, the application populates the trade window with the lowest acceptable values for the selected trader. This feature reduces typing and starts the negotiations at the lower limits. For example, the minimum values for Larry 22 are 52 ( $52.5 - 0.5$ ), 500 ( $1000 - 50\%$  of 1000), and 2 minutes (the lowest time limit he will accept). To initiate negotiations with a given trader, the user double-clicks on the trader line 4255 in the trader screen 4200. In the example shown, the selected trader is Larry 22. The "Best offer" button 4265 is used to arrange the order of the listed buyers or sellers according to the ones which most closely satisfy criteria set by the user. Available parameters include: widest price variation counteroffer; most

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time allowed; and highest activity level. A "not-to-exceed" field can be selected to limit order size above or below a certain amount. The button 4270 adjacent to the "Best offer" button displays a price 1/16 lower, in this case, from the listed price (52.5). The user can click button 4270 to have the application display parties selling at 52.438. This improves the trading efficiency of the user by not requiring him to return to the order book display and click on a different price.. (Note abstract and see column 29 lines 1-67 and column 30 lines 1-46 and column 31 lines 24-37 and column 12 lines 8-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Keiser to include determining whether any of the first computer program entities has offered an improved price, higher than the proposed price for buying or lower than the proposed price for selling and providing the improved price as the published price, wherein the notifying, determining and providing and are performed by a program second computer program entity executing on a computer taught by Buist in order to trade and analyze selected securities and aggregates and integrates securities trading information and order placement from various trading systems.

As per claim 4-5, Keiser receiving a plurality of improved prices from two or more of the entities during the predetermined interval, and selecting the best of the improved prices as the published price.(Note abstract and column 6 lines 45-65 and column 27 lines 10-25).

As per claim 7, 10-11, 25-26 Keiser a method of participating in pricing of security comprising: of receiving a proposed price for a the security from a second computer program entity and a computer. (Note abstract and see column 2 lines 57-67 and column 3 lines 1-28).

Keiser fail to explicitly teach determining whether to improve upon the proposed price, and when the determination is affirmative, offering an improved price to the second computer program entity which can be provided by the second computer program entity as a published price to a third party wherein the receiving determining and offering are performed by a first computer program entity executing on a computer.

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However Buist discloses in FIG. 42 is a negotiations screen. Users of the system can undertake direct, real-time on-line negotiations with other traders on the system. The purpose of the negotiations system is to permit traders to attempt to better the price of buying or selling stock as compared against the best bid and offer shown in the order book display. The negotiations screen has three main components: the "Traders at a price level" screen 4200, the "Out-going negotiations" screen 4205, and the "In-coming negotiations" screen 4210. The traders listed in the screen 4200 are called up by double-clicking on a quantity away from the best bid and offer shown in the order book display (see FIG. 25). The price corresponding to the quantity double-clicked in the order book display is the price listed in the "Price" column 4260 of the negotiations display traders screen 4200. In the example shown in FIG. 42, that price is 52.5. The numbers 4215 in parentheses adjacent to the best price amounts are the numbers entered by the traders designating the price above/below their limit price at which they are willing to negotiate. In the example shown, Fred D. is willing to negotiate within 3/16 (0.1875) of 52.5. Analogously, the numbers in the Qty column represent the number of shares each seller is offering for sale, and the numbers 4220 in parentheses adjacent to the share numbers have been entered by the sellers to designate the variation from the stated number of shares with respect to which they are willing to negotiate. Thus Fred D. is offering to sell 200 shares, but he might be willing to sell between 160 and 240 shares. The numbers in the "Time" column have been entered by the sellers, and designate their preferred negotiation times. The numbers 4225 in parentheses designate the lower time limit each trader will accept. The numbers in the "Activity" column 4230 represent the trader's level of trading activity in the selected stock. The numbers are in the set {0, 1, 2, 3, 4}, where 0 means that the trader has never negotiated a trade in that stock and 4 means that the trader is among the most active traders in that stock. The P/L-BBO column 4284 displays the user's loss or gain as compared to the current best bid or ask for the stock being negotiated. The price buttons 4240, the size buttons 4245, and the time buttons 4250 are located near the bottom of the negotiations display. Default incremental changes are set in the "Set defaults" screen (see FIG. 41) (the "Set defaults" screen is called up by clicking the "Set

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defaults" button 4235). Incorporated in the negotiation interface is a "Speed Function": if the user holds down the Shift key while selecting a trader, the application populates the trade window with the lowest acceptable values for the selected trader. This feature reduces typing and starts the negotiations at the lower limits. For example, the minimum values for Larry 22 are 52 ( $52.5 - 0.5$ ), 500 ( $1000 - 50\%$  of 1000), and 2 minutes (the lowest time limit he will accept). To initiate negotiations with a given trader, the user double-clicks on the trader line 4255 in the trader screen 4200. In the example shown, the selected trader is Larry 22. The "Best offer" button 4265 is used to arrange the order of the listed buyers or sellers according to the ones which most closely satisfy criteria set by the user. Available parameters include: widest price variation counteroffer; most time allowed; and highest activity level. A "not-to-exceed" field can be selected to limit order size above or below a certain amount. The button 4270 adjacent to the "Best offer" button displays a price  $1/16$  lower, in this case, from the listed price (52.5). The user can click button 4270 to have the application display parties selling at 52.438. This improves the trading efficiency of the user by not requiring him to return to the order book display and click on a different price.. (Note abstract and see column 29 lines 1-67 and column 30 lines 1-46 and column 31 lines 24-37 and column 12 lines 8-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Keiser to determining whether to improve upon the proposed price, and when the determination is affirmative, offering an improved price to the second computer program entity which can be provided by the second computer program entity as a published price to a third party wherein the receiving determining and offering are performed by a first computer program entity executing on a computer taught by Buist in order to trade and analyze selected securities and aggregates and integrates securities trading information and order placement from various trading systems.

As per claim 8, Keiser disclose comprising requiring the first computer program entity to register with the second computer program entity to receive proposed prices for trading the security to receive proposed prices for trading the security. (See column 2 lines 25-35 and column 21 lines 60-65).

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As per claim 9, Keiser disclose receiving a current price at the first computer program entity a current published price from the second computer program entity is deciding whether the published price is satisfactory to complete a transaction and when the decision is that the publish price is not satisfactory then registering the first computer program entity with the second computer program entity without booking an order for security . (Note abstract and see column 3 lines 15-65 and column 4 lines 5-56 and column 6 lines 45-55 and column 27 lines 10-25 and column 21 lines 60-65).

As per claims 12, 14-16, 18, and 20, 21-22, Keiser disclose maintaining an order book including orders to buy or sell specified quantities of the security at respective prices, the lowest sell order price and a computer.(Note abstract and see column 2 lines 57-67 and column 3 lines 1-28).

Keiser fail to explicitly teach the booked orders being the book sell price, the highest buy order price of the booked orders being the book buy order price engaging in a price discovery procedure with a set of first computer program entities before responding to a request for a current buy or sell price of the security to produce an discovered price, and providing the discovered price as the current buy or sell price, being higher than the book buy price or lower than the book sell price wherein the maintaining engaging and providing are performed by a second computer program entity program executing on a computer.

However Buist discloses in FIG. 42 is a negotiations screen. Users of the system can undertake direct, real-time on-line negotiations with other traders on the system. The purpose of the negotiations system is to permit traders to attempt to better the price of buying or selling stock as compared against the best bid and offer shown in the order book display. The negotiations screen has three main components: the "Traders at a price level" screen 4200, the "Out-going negotiations" screen 4205, and the "In-coming negotiations" screen 4210. The traders listed in the screen 4200 are called up by double-clicking on a quantity away from the best bid and offer shown in the order book display (see FIG. 25). The price corresponding to the quantity double-clicked in the order book display is the price listed in the "Price" column 4260 of the negotiations display traders screen 4200. In the example shown in FIG. 42, that price is 52.5. The



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numbers 4215 in parentheses adjacent to the best price amounts are the numbers entered by the traders designating the price above/below their limit price at which they are willing to negotiate. In the example shown, Fred D. is willing to negotiate within  $3/16$  (0.1875) of 52.5. Analogously, the numbers in the Qty column represent the number of shares each seller is offering for sale, and the numbers 4220 in parentheses adjacent to the share numbers have been entered by the sellers to designate the variation from the stated number of shares with respect to which they are willing to negotiate. Thus Fred D. is offering to sell 200 shares, but he might be willing to sell between 160 and 240 shares. The numbers in the "Time" column have been entered by the sellers, and designate their preferred negotiation times. The numbers 4225 in parentheses designate the lower time limit each trader will accept. The numbers in the "Activity" column 4230 represent the trader's level of trading activity in the selected stock. The numbers are in the set  $\{0, 1, 2, 3, 4\}$ , where 0 means that the trader has never negotiated a trade in that stock and 4 means that the trader is among the most active traders in that stock. The P/L-BBO column 4284 displays the user's loss or gain as compared to the current best bid or ask for the stock being negotiated. The price buttons 4240, the size buttons 4245, and the time buttons 4250 are located near the bottom of the negotiations display. Default incremental changes are set in the "Set defaults" screen (see FIG. 41) (the "Set defaults" screen is called up by clicking the "Set defaults" button 4235). Incorporated in the negotiation interface is a "Speed Function": if the user holds down the Shift key while selecting a trader, the application populates the trade window with the lowest acceptable values for the selected trader. This feature reduces typing and starts the negotiations at the lower limits. For example, the minimum values for Larry 22 are 52 ( $52.5 - 0.5$ ), 500 ( $1000 - 50\%$  of 1000), and 2 minutes (the lowest time limit he will accept). To initiate negotiations with a given trader, the user double-clicks on the trader line 4255 in the trader screen 4200. In the example shown, the selected trader is Larry 22. The "Best offer" button 4265 is used to arrange the order of the listed buyers or sellers according to the ones which most closely satisfy criteria set by the user. Available parameters include: widest price variation counteroffer; most time allowed; and highest activity level. A "not-to-exceed" field can be selected to limit

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order size above or below a certain amount. The button 4270 adjacent to the "Best offer" button displays a price 1/16 lower, in this case, from the listed price (52.5). The user can click button 4270 to have the application display parties selling at 52.438. This improves the trading efficiency of the user by not requiring him to return to the order book display and click on a different price.. (Note abstract and see column 29 lines 1-67 and column 30 lines 1-46 and column 31 lines 24-37 and column 12 lines 8-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Keiser to include the booked orders being the book sell price, the highest buy order price of the booked orders being the book buy order price engaging in a price discovery procedure with a set of first computer program entities before responding to a request for a current buy or sell price of the security to produce an discovered price, and providing the discovered price as the current buy or sell price, being higher than the book buy price or lower than the book sell price wherein the maintaining engaging and providing are performed by a second computer program entity program executing on a computer taught by Buist in order to trade and analyze selected securities and aggregates and integrates securities trading information and order placement from various trading systems.

As per claim 13, Keiser disclose wherein the price discovery procedure includes

providing the book buy or sell price to at least one entity registered to participate in the price discovery procedure.(See column 2 lines 5-65 and column 3 lines 15-65 and column 4 lines 5-56 and column 6 lines 45-55 and column 27 lines 10-25).

#### Conclusion

#### Response to Applicant's arguments

4. Applicant's arguments filed 10/27/06 has been fully considered but they are moot in view of new grounds of rejections.
5. In response to Applicant's arguments as it pertains to Keiser.
6. In response to Applicant's arguments the Keiser fail to teach or suggest "providing a published price for a security comprising: notifying (i. e, displays instruments") a set of computers of a proposed price for buying or selling the security, and a computer and

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determining whether any of the first computer program entities has offered an improved price, higher than the proposed price for buying or lower than the proposed price for selling and providing the improved price as the published price, wherein the notifying, determining and providing and are performed by a program second computer program entity executing on a computer" examiner disagrees with Applicant's because these limitations are addressed in a combination of teachings as stated,

Keiser discloses a method of providing a published price for a security comprising: notifying (i. e, displays instruments") a set of computers (i. e, plurality of client computers") of a proposed price for buying or selling the security, and a computer. Note abstract and see column 2 lines 57-67 and column 3 lines 1-28.

Buist discloses in FIG. 42 is a negotiations screen. Users of the system can undertake direct, real-time on-line negotiations with other traders on the system. The purpose of the negotiations system is to permit traders to attempt to better the price of buying or selling stock as compared against the best bid and offer shown in the order book display. The negotiations screen has three main components: the "Traders at a price level" screen 4200, the "Out-going negotiations" screen 4205, and the "In-coming negotiations" screen 4210. The traders listed in the screen 4200 are called up by double-clicking on a quantity away from the best bid and offer shown in the order book display (see FIG. 25). The price corresponding to the quantity double-clicked in the order book display is the price listed in the "Price" column 4260 of the negotiations display traders screen 4200. In the example shown in FIG. 42, that price is 52.5. The numbers 4215 in parentheses adjacent to the best price amounts are the numbers entered by the traders designating the price above/below their limit price at which they are willing to negotiate. In the example shown, Fred D. is willing to negotiate within  $\frac{3}{16}$  (0.1875) of 52.5. Analogously, the numbers in the Qty column represent the number of shares each seller is offering for sale, and the numbers 4220 in parentheses adjacent to the share numbers have been entered by the sellers to designate the variation from the stated number of shares with respect to which they are willing to negotiate. Thus Fred D. is offering to sell 200 shares, but he might be willing to sell between 160 and 240 shares. The numbers in the "Time" column have been entered by the sellers, and

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designate their preferred negotiation times. The numbers 4225 in parentheses designate the lower time limit each trader will accept. The numbers in the "Activity" column 4230 represent the trader's level of trading activity in the selected stock. The numbers are in the set {0, 1, 2, 3, 4}, where 0 means that the trader has never negotiated a trade in that stock and 4 means that the trader is among the most active traders in that stock. The P/L-BBO column 4284 displays the user's loss or gain as compared to the current best bid or ask for the stock being negotiated. The price buttons 4240, the size buttons 4245, and the time buttons 4250 are located near the bottom of the negotiations display. Default incremental changes are set in the "Set defaults" screen (see FIG. 41) (the "Set defaults" screen is called up by clicking the "Set defaults" button 4235). Incorporated in the negotiation interface is a "Speed Function": if the user holds down the Shift key while selecting a trader, the application populates the trade window with the lowest acceptable values for the selected trader. This feature reduces typing and starts the negotiations at the lower limits. For example, the minimum values for Larry 22 are 52 (52.5-0.5), 500 (1000-50% of 1000), and 2 minutes (the lowest time limit he will accept). To initiate negotiations with a given trader, the user double-clicks on the trader line 4255 in the trader screen 4200. In the example shown, the selected trader is Larry 22. The "Best offer" button 4265 is used to arrange the order of the listed buyers or sellers according to the ones which most closely satisfy criteria set by the user. Available parameters include: widest price variation counteroffer; most time allowed; and highest activity level. A "not-to-exceed" field can be selected to limit order size above or below a certain amount. The button 4270 adjacent to the "Best offer" button displays a price 1/16 lower, in this case, from the listed price (52.5). The user can click button 4270 to have the application display parties selling at 52.438. This improves the trading efficiency of the user by not requiring him to return to the order book display and click on a different price.. (Note abstract and see column 29 lines 1-67 and column 30 lines 1-46 and column 31 lines 24-37 and column 12 lines 8-44).

There it is obviously clear that Applicant's claimed limitations are addressed with in the Keiser and Buist.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 703-305-1874. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on 703-308-0505. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0040 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CG

January 4, 2006

  
FRANTZY POINVIL  
PRIMARY EXAMINER  
*AU 3692*